

Application No. 10/251,235
Response to Office Action of May 17, 2006

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AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An access point for facilitating communication with one or more wireless devices in a wireless local area network comprising:

an access point processor;

a wireless transceiver having at least one wireless antenna, the wireless transceiver coupled to the access point processor, the wireless transceiver configured to receive and transmit data to at least one of the one or more wireless devices device in the wireless local area network; and

a RFID transceiver having at least one RFID antenna, the RFID transceiver coupled to the access point processor, the RFID transceiver configured to receive data from at least one of the one or more wireless devices device in the wireless local area network when the wireless transceiver is unavailable; and

wherein the RFID transceiver is further configured to receive predesignated data without interrogating the mobile device to reduce demand on the wireless transceiver.

2. (Original) The access point of claim 1 wherein the access point is powered through an Ethernet connection.

3. (Original) The access point of claim 1 wherein the access point is coupled to a wired local area network.

4. (Original) The access point of claim 1 wherein the wireless device comprises an RFID reader.

5. (Original) The access point of claim 1 wherein the wireless transceiver is unavailable because the wireless transceiver is busy handling other data.

6. (Original) The access point of claim 1 wherein the wireless transceiver is unavailable because the wireless transceiver is inoperative.

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7. (Cancelled)
8. (Original) The access point of claim 1 further comprising two or more RFID antennas coupled to the RFID transceiver via an antenna switch configured to connect the RFID transceiver with one of the two or more RFID antennas.
9. (Original) The access point of claim 8 wherein each of the two or more RFID antennas are coupled to the access point by a coaxial cable.
10. (Original) The access point of claim 9 wherein the RFID antennas are located remotely from the access point.
11. (Original) The access point of claim 9 wherein the RFID antennas are collocated with the access point.
12. (Original) The access point of claim 1 wherein the access point processor converts data received from the RFID transceiver or from the wireless transceiver and converts the data into proper format for transmission to a computer network.
13. (Currently Amended) A system for communicating data through a network comprising:
an access point comprising:
an access point processor;
a wireless transceiver having at least one wireless antenna, the wireless transceiver coupled to the access point processor, the wireless transceiver configured to receive and transmit data to a wireless device in a wireless local area network; and
a RFID transceiver having at least one RFID antenna, the RFID transceiver coupled to the access point processor, the RFID transceiver configured to receive data from the wireless device in the wireless local area network when the wireless transceiver is unavailable; and
a mobile unit comprising:

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a mobile unit processor;

a mobile unit wireless transceiver having at least one mobile unit transceiver antenna, the mobile unit transceiver coupled to the mobile unit processor, the mobile unit wireless transceiver configured to receive and transmit data to the access point; and

a mobile RFID transceiver having at least one mobile RFID transceiver antenna, the mobile RFID transceiver coupled to the mobile unit processor, the mobile unit processor configured to send data to the RFID transceiver of the access point when the wireless transceiver of the access point is unavailable; and

wherein the mobile unit mobile transceiver is configured to send data to a first access point and the mobile RFID transceiver is configured to send data to a second access point.

14. (Original) The system of claim 13 wherein the access point is powered through an Ethernet connection.

15. (Original) The system of claim 13 wherein the access point is coupled to a wired local area network.

16. (Original) The system of claim 13 wherein the wireless transceiver is unavailable because the wireless transceiver is busy handling other traffic.

17. (Original) The system of claim 13 wherein the wireless transceiver is unavailable because the wireless transceiver is inoperative.

18. (Original) The system of claim 13 wherein the wireless transceiver is unavailable because the data sent by the wireless device is predesignated for reception by the RFID transceiver to reduce demands on the wireless transceiver.

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19. (Original) The system of claim 13 further comprising two or more RFID antennas coupled to the RFID transceiver via an antenna switch configured to connect the RFID transceiver with one of the two or more RFID antennas.
20. (Original) The system of claim 19 wherein each of the two or more RFID antennas are coupled to the access point by a coaxial cable.
21. (Original) The system of claim 20 wherein the RFID antennas are located remotely from the access point.
22. (Original) The system of claim 19 wherein the RFID antennas are collocated with the access point.
23. (Original) The system of claim 13 wherein the access point processor converts data received from the RFID transceiver or from the wireless transceiver and converts the data into proper format for transmission to a computer network.
24. (Original) The system of claim 13 wherein the access point is configured to interrogate RFID tags placed on objects.
25. (Original) The system of claim 13 wherein the mobile unit is configured to be used as a RFID reader.
26. (Original) The system of claim 13 wherein the mobile unit processor executes computer code to initiate a check to determine if the wireless transceiver of the access point is unavailable.
27. (Original) The system of claim 13 further comprising a second access point having a second RFID transceiver coupled to one or more RFID antennas and a second wireless transceiver, the second wireless transceiver outside of the range of the mobile unit wireless transceiver and a least one of the one or more RFID antennas within the range of the mobile unit RFID antenna.

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28. (Currently Amended) A mobile unit for use in a wireless communication network comprising:
- a mobile unit processor;
 - a mobile unit wireless transceiver coupled to the mobile unit processor, the mobile unit wireless transceiver configured to receive and transmit data to a wireless transceiver of an access point; and
 - a mobile RFID transceiver coupled to the mobile unit processor, the mobile unit processor configured to send data to the RFID transceiver of the access point when the wireless transceiver of the access point is unavailable; and
- wherein the mobile unit mobile transceiver is configured to send data to a first access point and the mobile RFID transceiver is configured to send data to a second access point.
29. (Original) The mobile unit of claim 28 wherein the mobile unit is configured to operate as a RFID reader.
30. (Original) The mobile unit of claim 28 wherein the mobile unit processor is operable to initiate a check to determine if the wireless transceiver of the access point is unavailable.
31. (Original) The mobile unit of claim 28 wherein the wireless transceiver is unavailable because the wireless transceiver is busy.
32. (Original) The mobile unit of claim 28 wherein the wireless transceiver is unavailable because the wireless transceiver is inoperative.
33. (Original) The mobile unit of claim 28 wherein the wireless transceiver is unavailable because the data sent by the wireless device is designated for reception by the RFID transceiver to reduce demands on the wireless transceiver.
34. (Currently Amended) A method of transferring data from a mobile unit to a wireless access point comprising:

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checking the availability of a wireless transceiver of the wireless access point by using a probe request; and
transferring data via a mobile unit RFID transceiver to an RFID transceiver of the access point if the wireless transceiver of the wireless access point is unavailable;
and
transferring data via a mobile unit wireless transceiver if the wireless transceiver of the access point is available.

35. (Original) The method of claim 34 wherein the step of checking the availability comprising checking the availability of a wireless transceiver of the wireless access point to determine if it is busy.

36. (Currently Amended) The method of claim 34 wherein the step of checking the availability comprising checking the availability of a wireless transceiver of the wireless access point to determine ~~if~~ if it is inoperative.

37. (Original) The method of claim 34 wherein the step of transferring data via a mobile unit wireless transceiver if the wireless transceiver of the access point is available further comprises transferring data via a mobile unit wireless transceiver if the wireless transceiver of the access point is available and the data to be transferred is not one of a set of predetermined transmissions that are always directed to the RFID antenna of the access port.

38. (Currently Amended) A method for receiving data from a mobile unit at an access point comprising:

receiving a probe request from the mobile unit to determine availability;
transmitting an indication that a wireless transceiver of the access point is unavailable;
receiving data from a mobile unit using an RFID transceiver of the access point if the access point is unavailable; and
receiving data from a mobile unit using the wireless transceiver of the access point if the access point is available.

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39. (Currently Amended) A wireless access point comprising:
- an RFID receiver configured to receive RFID transmissions from a mobile unit without the RFID transceiver sending an interrogation to the mobile unit;
 - three or more RFID antennas;
 - an antenna switch coupled to each of the RFID antennas and the RFID receiver, the antenna switch configured to selectively connect one of the three or more RFID antennas to the RFID transceiver ; and
 - wherein the RFID receiver is configured to send interrogation signals from each of the three or more RFID antennas to locate mobile units using triangulation.